



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,372	03/16/2004	James B. Boomer	112055-0077U	3801
24267	7590	08/11/2005	EXAMINER	
CESARI AND MCKENNA, LLP 88 BLACK FALCON AVENUE BOSTON, MA 02210			WAMSLEY, PATRICK G	
			ART UNIT	PAPER NUMBER
			2819	
DATE MAILED: 08/11/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/802,372	Applicant(s) BOOMER ET AL.	
	Examiner Patrick G. Wamsley	Art Unit 2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 4-6 and 14-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-13, 17-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2819

DETAILED ACTION

Specification

A substitute specification is required pursuant to 37 CFR 1.125(a). The specification filed on 06/08/2005 has NOT been entered

A substitute specification must not contain new matter. The substitute specification must be submitted with markings showing all the changes relative to the immediate prior version of the specification of record. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. An accompanying clean version (without markings) and a statement that the substitute specification contains no new matter must also be supplied. Numbering the paragraphs of the specification of record is not considered a change that must be shown.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

Claims 1 is objected to because of the following informality:

Claim 1, line 6: Change "to the define" to -- to define --.

Appropriate correction is required.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3, 7-10, 11-13, and 17-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 6, 2, 18, 19, 20, 25, 21, 37, and 38 of copending Application No. 10/824,747.

Art Unit: 2819

Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons:

For independent claim 1, claim 1 of the application discloses a serializer comprising means for outputting signals in the form of serially output data word bits. While it does not expressly recite a bit clock, use of such a clock would have been obvious to one of ordinary skill in the art. The motivation would have been to provide means to control the process of outputting data bit by bit, a operation that necessarily requires some timing mechanism.

Claim 11 restates the apparatus limitations of claim 1 in process form. Similar element can be found in process claim 20 of the application.

For claims 2 and 12, claims 6 and 25 of the application use a parallel bus instead of reciting a bi-directional data bus. However, it would have been obvious at the time of the invention for one of ordinary skill in the art to have used a bi-directional bus. The motivation would have been to allow flow of data in more than one direction, a procedure that is commonly used in the art of computing systems.

For claims 3 and 13, claims 2 and 21 of the application provide the recited word boundary limitation, using a combination of signals.

Linking claims 7-10 and 17-20 correspond to linking claims 18-19 and 37-38 in the application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7-13, and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,377,575 to Mullaney et al, hereafter Mullaney.

For claims 1, 7, 11, and 17, Mullaney discloses a crosspoint switch circuit [Fig. 4: 50] comprising a serializer [Fig. 5b: 62] and a deserializer [60]. A bit clock signal acts as a master strobe [col. 6, line 52], determining the timing of data flow from both converters [60/62]. More specifically, timing generators [96/98] respectively apply bit clocks as control signals to each converter [62/60].

For claims 2, 8, 12, and 18, Mullaney provides bi-directional switch ports [54], terminal points for a bi-directional data bus able to both send and receive data.

For claims 3, 9, 13, and 19, Mullaney describes a word alignment process [illustrated in Fig. 6A]. Alignment words, including no inherent data content [col. 13, line 5], are output through the serializer [92] and received by the deserializer [78]. If the alignment detector does not detect the correct alignment word, the clock shifts by one bit [col. 13, lines 22-25]. The process continues until alignment words are correctly framed in accordance with the clock signal [col. 13, lines 42-46].

For claims 7 and 17, Mullaney's timing generators [96/98] provide the recited first and second bit clock signals.

Art Unit: 2819

For claims 10 and 20, Mullaney's timing generators [96/98] produce control signals for both converters [62/60].

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 6,266,710 to Dittmer et al shows a serial data transfer device having S/P and P/S converters. U.S. Patent 4,809,166 to Cooper discloses a data serializer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick G. Wamsley whose telephone number is (571) 272-1814. The official facsimile number is (571) 273-8300. An alternate facsimile number, (571) 273-1814, should only be used for unofficial documents.



Patrick G. Wamsley

August 9, 2005